

Polio, hepatitis B and AIDS: an integrative theory on a possible vaccine induced pandemic

L. G. Horowitz

Tetrahedron Incorporated, Sandpoint, Idaho, USA

Summary The hypothesis that simian virus 40 (SV40) infected polio vaccines may be linked to the evolution of acquired immunodeficiency disorder (AIDS), and certain cancers, has been advanced. Most recently, investigators discussed the likelihood of gene-reshuffling following SV40 infection as a precursor to acquired immune dysfunction. Findings of recent SV40 infections in four children born after 1982 suggest infections were transmitted vertically along gene lines. Earlier observations proved activation of a retrovirus gene by a hepatitis B virus (HBV) protein. This paper proposes a new integrative theory on the origin of AIDS. It advances the possibility of genetic recombinations with oncogene activation by HBV involving simian viruses that likely infected polio vaccinated blood donors to the initial hepatitis B (HB) vaccine trials conducted on gay men in New York City and Ugandan Blacks in the early to mid-1970s. The socio-economic and even military ramifications associated with this politically challenging thesis are discussed.

© 2001 Harcourt Publishers Ltd

INTRODUCTION AND BACKGROUND

Scientific reports have advanced a theory of a polio vaccine linked evolution of AIDS and certain cancers (1–4). A possible link between SV40, that contaminated early Salk and Sabin polio vaccines, and AIDS, was initially explored by Kyle in *The Lancet* in 1992 (4). More recently, Hooper published a controversial 1100 page treatise advancing the likelihood of polio vaccine delivered AIDS virus progenitors (5). Investigators Urnovitz (1), Butel (2–3) and others (4), discussed the possibility of 'gene-reshuffling' following polio vaccination and SV40 infection as a precursor to acquired immune dysfunction and the development of certain cancers. Likewise, Butel revealed evidence of recent SV40 infections in four children born after 1982 (3). Her team advanced the likelihood that the

infections were transmitted vertically, along gene lines, from parents who had received tainted polio vaccines. Earlier, she observed the activation of a HTLV-1 retrovirus gene by a HB virus protein (6). Relatedly, Horowitz and Martin, advanced the possibility of simian foamy retrovirus recombinations with SV40, followed by immune suppression and oncogene activation and/or transmission, among HB vaccine recipients in AIDS-linked populations in New York City and Central Africa (7). Hooper, in his lengthy analysis, could not discount the possibility that HB vaccines played a role in the development of the North American AIDS outbreak (5).

Given this background, this paper advances an integrative theory on the origin of AIDS. It asserts the possibility of genetic recombinations between SV40, chimpanzee immunodeficiency virus (SIVcpz), and/or other simian viruses containing reverse transcriptase such as the foamy retroviruses (SFR), that likely infected blood donors who had first received contaminated polio vaccines in the 1950s and early 1960s, before 'volunteering' for the HB vaccine trials conducted on gay men in New York City (NYC), Blacks in Uganda, and other minority groups in 1974 through 1975.

Received 28 September 1999

Accepted 30 May 2000

Correspondence to: Leonard G. Horowitz DMD, MA, MPH, President and Co-Founder, Tetrahedron Incorporated, a nonprofit educational organization, Post Office Box 2033, Sandpoint, Idaho, 83864, USA.
<http://www.tetrahedron.org>; E-mail: tetra@tetrahedron.org

Ten years later, in 1984, the Centers for Disease Control and Prevention (CDC) first responded to concerns that experimental HB vaccines, administered during the 1970s to homosexual men in the United States, were somehow linked to the AIDS epidemic (8). Anonymous authors representing the CDC, along with others from Merck, Sharp & Dohme (MSD), and the State University of New York (SUNY), reported no trace of the human immunodeficiency virus (HIV-1) in samples of vaccine supplied by MSD. Further, their epidemiologic analyses, conducted on gay HB vaccine trial subjects in Denver and San Francisco, showed no relationship between AIDS cases and HB vaccine exposure. For unexplained reasons, homosexual males from New York City were not included in their study.

GENETIC ANALYSES ELUCIDATING HIV-1'S ORIGIN

Recently, the findings of Casado et al. suggested the Spanish introduction of HIV-1 occurred somewhere between 1943–1987(9). In 1998, Zhu et al. described an African HIV-1 sequence from 1959 and its implications regarding the origin of the AIDS pandemic (10). Later, Gao et al. (11) provided additional evidence of HIV's link to African chimpanzees by 'amplifying' two DNA sequences, from two of six HIV genes, into 'four overlapping subgenomic fragments that together comprised a complete pro viral genome,' which they termed SIVcpzUS. In an editorial accompanying this report by Weiss and Wragham (12), it was noted that the chimpanzee Gao et al. studied, 'Marilyn,' came to the United States Air Force primate center in New Mexico like most other African primate infants – free of sexually transmitted viruses. They implied that Marilyn's infection could have originated in a laboratory.

Zhu et al. further advanced an iatrogenic theory of HIV's origin when they confessed, 'the factors that propelled the initial spread of HIV-1 in central Africa remain unknown: the role of large-scale vaccination campaigns... should be carefully examined...' Although the possible role contaminated vaccines might have played was not addressed by these authors, they provided additional insights into the inherent risk of *in vitro* and *in vivo* viral recombination(s) when their data is compared with earlier scientific reports concerning the HB vaccine.

Zhu et al. advanced a curious association that 'for most regions of the HIV-1 genome, subtypes B and D are more closely associated with each other than are any other subtypes with the major group.' (10). Of the six major AIDS virus subtypes, the B subtype is most common to North America. The D subtype is most common to Uganda, and the F subtype is most common in Zaire (13). These authors' analysis showed an 'unusual B/D/F

clustering found in [their] phylogenetic analyses.'

In 1993, Myers and colleagues published their 'big bang' theory on the origin of AIDS and HIV-1 based on sophisticated genetic analyses conducted at the U.S. Government's Los Alamos Laboratory. They concluded that subtypes B, D, and F, along with close African/Indian virus relatives A, E and C, simultaneously emerged on three distant continents, in behaviorally divergent populations no less, during the early to mid-1970s, despite recognizing simian virus gene sequences of earlier evolution (13).

EPIDEMIOLOGIC COMMON SENSE

Based on the above background and genetic findings, an iatrogenic mode of transmission, as opposed to an isolated natural crossspecies jump, may best explain how HIV-1 simultaneously emerged on three far removed continents among behaviorally divergent populations during the mid 1970s.

Several non-iatrogenic origin and cross species transmission rumors have been advanced regarding HIV-1 and its closest relative SIVcpz. The genetically more distant relative HIV-2, and the even more divergent African green monkey virus (SIVagm), are all believed, like HIV-1, to have spontaneously leaped from the African jungle. Related explanations included unprotected sex with non-human primates, monkey bites, dining on bloody primate meat, needlestick injuries in primate containment facilities or African hospitals, intercontinental infected passenger travel, and even viral mutations associated with global warming and jungle deforestation (14). All these theories seem tenuous, if not ludicrous, when considered in light of the epidemiologic and scientific evidence compiled.

Given the above, including the findings of Urnovitz (1), Butel (2,3) and others (4,5), it is most reasonable to consider the polio vaccine as a likely factor in the origin of AIDS. As reported by Essex, African green monkey derived oral polio vaccines (OPV) were a constant reservoir for SIV (15). During OPV manufacturing procedures, viral mutations and vaccine contaminations routinely occurred without much ado. In America, for instance, the Food and Drug Administration (FDA), even to the time of this writing, have not been able to assure the quality and safety of vaccines, including those for polio and HB (7). Regarding the Salk and Sabin polio vaccines, according to Martin (a previous FDA vaccine and cancer virus official) and Kyle's report (4), doses of OPV routinely contained as many as 100 simian virus particles, including SV40, SIVs, and SFRs overlooked by FDA overseers to uphold pharmaceutical industry and regulatory standards.

However, as per Myers's findings, HIV contaminated polio vaccines, or even earlier viral fragment isolates, could

not explain the 1970s 'big bang'. Given the generally recognized seven to 10 year incubation period for HIV/AIDS expression, an early polio vaccine transmitted pandemic would have likely prompted initial identifications of non-gay AIDS cases before 1970, and certainly no later than 1975. Instead, the first gay-related-immunodeficiency disease (GRID) cases were heralded in New York City in 1981 (16). Moreover, had the Salk or early Sabin vaccines transmitted HIV between 1955 and 1965 as Hooper and others have advanced (1–5), then Myers's conclusion would have likely reflected this, as would a North American AIDS outbreak not initially confined to homosexual males.

Thus, it seems prudent to consider the findings of Butel (6) concerning HB as a potential retrovirus (e.g. HIV or HIV progenitor) activating agent, and/or cofactor, delivered with the 1970–75 HB vaccines involving New York's gay men, Willowbrook State School (WSS) mentally retarded children, and Ugandan Blacks who had approximately 10 years earlier received monkey virus contaminated polio vaccines.

This thesis would more effectively explain the 'unusual,' most closely associated, American/Ugandan (i.e., B/D) strain proximity reported Zhu et al. (10).

INTEGRATING POLIO AND HB VACCINE THEORIES OF AIDS

Given the administration of simian virus contaminated, monkey kidney tissue derived, polio vaccines in North America and Subsahara Africa from the mid 1950s through at least the early 1960s; then later, in overlapping populations, the pilot testing of HB vaccines in these same regions from 1973 to 1975, the major group subtypes, B/D/F, as well as strains A/E, might have evolved in experimental chimpanzees, and/or human test subjects, during the viral vaccine production and testing stages. Subsequent HB vaccine production methods for later trials incorporated additional contamination risks with the mixing of chimpanzee incubated HB virus with human blood. According to a 1975 report by Robert Purcell from the Laboratory of Infectious Diseases of the National Institute for Allergies and Infectious Diseases (NIAID), this blood was subsequently pooled to produce four subtypes of experimental HB vaccine (referred to as *adw*, *ayw*, *adr* and *ayr*) (17,18). Collaborating agencies, he reported, included the New York University Medical Center (NYUMC), CDC, FDA, NIAID, and Merck pharmaceutical company (18). These experimental HB vaccine subtypes were tested primarily in NYC and portions of Africa-regions largely overlapping the predominance of major HIV-1 strains B and D. According to a 1979 NIAID task force report (17), the four live HB viral subtypes were subsequently transmitted to 'high risk' humans. A National Cancer Institute (NCI) Monograph of 1974

charted these "liver cancer" experiments in NYC and northwest Uganda in collaboration with the (NIH funded) International Agency for Research on Cancer (IARC) at that time (20).

As explained in contemporary medical bioethics texts, the 'high risk' label, applied to groups predisposed to blood borne pathogen infections, served to also justify gross violations of bioethics and informed consent, particularly during the HB vaccine experiments conducted by Krugman and colleagues at the New York University Medical Center (NYUMC) and affiliated NYC Blood Center labs (19).

Dr. Krugman was credited with 'isolating' the first HB (MS-2) strain of virus from a mentally retarded child. This pathogen was originally called the 'Australian antigen (AuAg)'. Subsequently, Krugman et al. cultured the virus in mentally retarded children before extracting AuAg for subsequent HB vaccine trials by Purcell et al. (18).

Experimental subjects for these HB vaccine trials included homosexual males in NYC, Willowbrook State School (WSS) mentally retarded children on Staten Island, and central African Blacks. All subjects were not informed that the four subtype HB vaccines being tested were partially processed in live potentially contaminated chimpanzees, shipped from Africa by Bionetics, then housed in NYC where biohazard and containment problems, including the horizontal transmission of infectious diseases, was routine (18,19).

Further scrutinizing the development and testing of these four HB vaccine subtypes, the blood from these experimentally infected human subjects was later pooled and used to develop 'perhaps 200,000 human doses' according to Merck's vaccine chief, Maurice Hilleman (19). Again, these doses contained HB viruses serially passed from Australian humans, to WSS children, into African chimpanzees, before being reinoculated into New Yorkers and central Africans via vaccines by 1975 (22). This was perfect timing for the initial outbreak of GRID/AIDS cases in these specific geographically distant regions by the late 1970s.

Relatedly, in a recovered interview, Dr. Hilleman reported unwittingly importing AIDS virus into North America in contaminated monkeys destined for vaccine research and development at Merck (23). Likewise, Dr. Hilleman's coauthor and senior Merck vaccine developer, Benjamin Sweet, expressed regret that their early SV40 contaminated polio vaccines may have contributed to contemporary cancer epidemics. '[N]ow, with the theoretical links to HIV and cancer,' he reported in 1998 on the internet, 'it just blows my mind.' (24).

REFUTING THE 'BIOLOGICAL WEAPONS HYPOTHESIS'

In research related to Krugman's and later Hilleman's HB

vaccine studies, a report by Litton Bionetics staff to the National Cancer Institute (NCI) showed that by 1968, AuAg had been extracted from human 'plasma/serum' and injected into eleven simians. Seven were reported 'dead or transferred' by 1971 (20).

Litton Bionetics, with a monkey colony in southeast Uganda, and links to the NIH funded IARC based in France, with labs in northwest Uganda, was reported to be the principal supplier of African simians for the NCI and America's leading biomedical and biological weapons (BW) contractors (7,20). Bionetics was also the U.S. military's sixth leading BW contractor according to the 1969 *Congressional Record* (21). In his otherwise worthy analysis, Hooper overlooked these facts and discounted the 'biological weapons hypothesis' of AIDS, calling it 'vague' and 'unsupported by historical evidence about the nature of the rumored lethal agents' (5). He was apparently strangely unaware, given his in-depth study, of the questions raised by NCI documents reprinted in this author's well circulated text (7) showing hepatitis, herpes, and retrovirus recombinants (including acute lymphocytic leukemia virus hybridized with influenza or parainfluenza viruses in an attempt to bioengineer even airborne immunosuppressive retroviruses) cultured and tested before 1971 at Bionetics and collaborating labs in Uganda and outside Bethesda (20). Hooper also failed to discover that Bionetics also administered the 'Special Virus Cancer Program' for the NCI and NIH including HB collaborative studies between New York investigators representing the Merck pharmaceutical company and the IARC in Uganda (5,20). Further fueling a 'conspiracy theory of AIDS' is a U.S. Army publication showing George W. Merck, the president of the Merck pharmaceutical company, was America's biological weapons industry director for most of the cold war. The *Congressional Record* also shows the Merck drug company, like Bionetics, had been a major contractor for the Department of Defense contributing to the CIA's top secret biological weapons program MK: NAOMI (22).

HIV-2 AND THE POSSIBLE IATROGENIC ORIGIN OF HIV-1

Ample scientific evidence exists to advance the generic thesis of vaccine laboratory contamination associated with retroviral transmissions risking epidemic outcomes.

A classic example intimately related to this polio/HB vaccine/AIDS hypothesis is the identification of HIV-2 by Max Essex and colleagues at the Harvard AIDS Institute. These investigators published discovering HIV-2 among healthy Senegalese female prostitutes (25). In Senegal, prostitution is legal and the sex workers are required to report for clinical examinations and HB vaccinations periodically for relicensure. Eventually investigators deter-

mined that the simian immunodeficiency virus from the macaque monkey (SIVmac) and Essex's HIV-2 were genetically *identical* (26,27). Moreover, wild macaques were not found to harbor this virus whatsoever. SIVmac was only found in laboratory contaminated primates (28). Thus, Shultz concluded that culturing monkey viruses in human tissues, as is often done in viral vaccine production labs, risks activating previously benign 'retroviral genomes carried in the germline for millions of years' into pathogens capable of inducing immune dysfunction. He, therefore, advised reexamining 'any remaining [polio] vaccine lots by the polymerase chain reaction' so as to identify HIV or related lentiviruses (28). Given the above evidence, the same should be urged for the earliest HB vaccine lots, although, as discussed below, there are opposing arguments to this method of investigation along with political hurdles.

Following Dr. Essex's 1996 presentation at the National AIDS Update Conference in San Francisco, I had the opportunity to question him as to, 'How, other than through contaminated vaccines, could a monkey virus that doesn't exist in the wild, end up infecting Senegalese female prostitutes?' Evading the question he replied, 'I can tell you how my monkeys got infected... Researchers had inoculated the monkeys with human tissues during experiments [unrelated to HIV] prior to them coming to my lab.' (22)

Though his comment failed to explain how HIV-2 got into HB vaccinated Senegal sex workers in the first place, it did provide a unique admission of human error commonly associated with laboratory contaminations, including the threat of viral particles crossing species barriers. Until a more rational explanation is advanced, the HB vaccine is logically and iatrogenically implicated with HIV-2 as well as HIV-1.

THE NEW YORK HB VACCINE AIDS LINK

During the early 1970s, researchers at the NYUMC led the world in determining blood group compatibility between humans and simians. Investigators here set the stage for the use of monkey blood in human vaccine trials (22). NYUMC dermatologists and hematologists were credited with the discovery and analysis of the first gay Kaposi's sarcoma (KS) lesion (29). Across town, at the Rockefeller affiliated Sloan-Kettering Institute for Cancer Research, Dermatology Department, Dr. Eleanor R. Lappano-Colletta was busy studying viral infected tissue taken from young gay men with KS. Between 1973 and 1974, she testified, her dermatology department directors were routinely communicating with NCI chiefs and Litton affiliates including their 1971 retrovirus 'project officer,' Dr. Robert Gallo, regarding the subject of her investigation – the unique

retroviral particles she was studying in the tissue samples taken from gay KS victims (30).

Dr. Lappano-Colletta's admissions raise the spectre that the 1984 contested co-discovery of HTLV-III (i.e., HIV-1) by Dr. Gallo and French colleague, Dr. Luc Montagnier, actually followed the formers' learning about the teratogenic effects of a pathogenically related retrovirus circulating in gay men 10 years previously – just prior to the administration of the suspected HB vaccines in the same city and same unique population.

Besides Litton Bionetics, the NYUMC was also listed among the Army's top biological weapons contracting labs by 1969 (21), following his MS-2 studies, under Army contract, Dr. Krugman routinely used mentally retarded children and gay men to grow/culture and/or test HB viral strains and vaccines (31). The pilot HB vaccines theoretically linked here to the earliest GRID cases in NYC was overseen as well by an advisory committee chaired by Dr. Krugman (32), and researched by intimate Krugman collaborator, Abbott Laboratory's L. R. Overby. Together, Krugman and Overby evaluated HB susceptibility and vaccination methods on NYC subjects between 1965 and the mid-1970s (19,31,33). Subsequently, Abbott Labs began commercially marketing MSD's HB vaccine (29,33,34), and a few years later, the HB core antigen for screening HIV infected blood by order of NYC Blood Center (NYCBC) officials, became the industry standard.

Noteworthy too is the NYCBC link, through the NYC Blood Council, to the administrative leadership and major funding of the Rockefeller and Alfred P. Sloan Foundations. During the period of Krugman's and Overby's work, these organizations were heavily influenced, if not directed and financed, by Laurance Rockefeller – a fact that affects the credibility of certain detractors of this and Hooper's hypothesis (22).

In the late 1970s, even larger scale HB vaccine trials began under the direction of Wolf Szmuness, also affiliated with the NYCBC. He explained his selection of gay men based on Dr. Krugman's early studies thusly:

Several populations in the United States with a high risk of HBV infection were considered for such a trial: patients institutionalized for mental retardation, patients undergoing hemodialysis, members of the medical staff of dialysis centers, American Indians, and homosexual men. Of these groups, a population of HBV-susceptible homosexual healthy young men appeared to be the most suitable. Their risk of HBV infection is unusually high, they are readily accessible through numerous gay organizations, and their cooperation in *previous studies* has been excellent (32). [Emphasis added]

It is well known that HIV/AIDS rates among native Americans, people of color, blood product recipients, and homosexual males, have far exceeded those of the gene-

ral population. 'Natural' cross-species jump proponents argue unconvincingly that this peculiar mix of 'high-risk' groups occurred by chance as a result of bloodborne virus pathogenesis and 'natural selection.' The overlap between populations most affected by HIV/AIDS, and those selected for early and later HB vaccine experiments, as cited above, explains far better than lifestyle risks this epidemiology. Viewed from this perspective, even IV drug users may have acquired an elevated risk status as a result of maintenance programs that offered drugs like methadone for those who complied with standard 'immunization requirements,' primarily HB vaccination.

This empiric association, then, between HB vaccines and the AIDS pandemic begs further investigation. The report by Poiesz et al., including anonymous CDC authors, excluding gay NYC HB vaccine study participants, demands reconciling in the wake of these revelations (22).

ADDITIONAL SUGGESTIVE EVIDENCE FOR AN HB VACCINE-TRIGGERED PANDEMIC

Additional evidence suggesting a HB vaccine triggered outbreak of GRID in America is presented below.

In 1976, the WSS was forced to close allegedly due to physical abuses sustained by the children at the hands of school administrators. Based on the information documented above, it is possible, if not likely, that many of the approximately 5000 children sent back to their communities in 1976 were among the world's first AIDS victims (22).

Larger scale HB vaccine trials in NYC began after the closing of WSS. In 1978, 1083 gay men were inoculated with the Merck developed and Abbott marketed vaccine. In March, 1980, approximately eighteen months after the NYC inoculations ended, gay men in five other American cities began to receive the vaccine. These cities included Los Angeles, San Francisco, Denver, St. Louis, and Chicago from where 1402 homosexuals were initially recruited from VD clinics. Later, thousands more joined additional HB vaccine trials.

Blamed on sexual promiscuity by the scientific consensus, and on immune suppressive behaviors by alternative theorists, between 1978 and 1984 the percentage of HIV-positive gay men in NYC rose dramatically (34,35). In other HB vaccine study populations the rise in HIV-1 seroprevalence and AIDS was not nearly as great, although still disconcerting and enlightening. In San Francisco, for instance, among those who had been subjects in the trials ($n = 6800$) the HIV/AIDS rate rose from less than 1% in 1978, to 25% in 1980 (39). Unsupportive to these consensus and alternative theorists, this increase was precipitous contrasting the rate of HIV infection among homosexual men reported elsewhere. Across the U.S. HIV/AIDS rates varied from 0% in many communities to 70% in NYC, with

significantly less in San Francisco's unvaccinated gay population.

In 1982, concerns were expressed at the Pasteur Institute regarding the possible link between AIDS and the Merck-manufactured HB vaccine. Luc Montagnier was then assured by CDC HB chief Don Francis, Max Essex's protege, that 'no link between AIDS and the [HB] vaccine inoculations' had been found. Yet, a year later, Dr. Francis sent Dr. Montagnier 13 blood samples from GRID patients all of whom received experimental HB vaccines (22,34).

Dr. Francis had expressed concern regarding the apparent association between feline leukemia virus like illness striking gay men in NYC, Los Angeles, and San Francisco, and the distribution of HB cases. 'Combine these two diseases – feline leukemia and hepatitis – and you have the immune deficiency,' he surmised (35). This was much like what a NATO scientific audience discussed more than a decade earlier when Gallo explained combining synthetic RNA and feline leukemia virus (FELV) 'template' with 'human type C' viruses-those associated with cancers of the lymph nodes – to increase the rate of DNA production (and subsequent provirus and virus reproduction) 'as much as thirty times' (36). Such hybrid viruses, these researchers reported, caused many cancers besides leukemias and lymphomas, including sarcomas. Other Gallo, NCI, and Litton Bionetics teams reported modifying, at that time, SV40 by infusing it with nucleic acids from other species including FELV, avian myeloblastosis virus (AMV), both associated with leukemia and sarcoma development, and mouse sarcoma RNA to make them severely immunosuppressive to primates (37).

Additionally, in 1985, Harold Jaffe, deputy director for AIDS science at the CDC, with co-worker Andrew Moss, 'presented data from the San Francisco HB study that found the virus was present in blood of 4.5% of the study's subjects in 1978, 20% in 1980, and 67% by late 1984.' (38). In contrast, only about 40 percent of a randomly selected sample of gay men (also in San Francisco, and some part of the HB vaccine cohort) were infected. Based on this evidence, again considering the 7–10 year incubation period for HIV/AIDS, the 'big bang' most likely occurred as Myers proposed (13) during the early to mid-1970s with the HB vaccine cohort preceding the general gay, and later heterosexual, populations for epidemic onset (12).

Reinforcing this conclusion, CDC official Paul O'Malley also investigated this suspected GRID/HB vaccine link. He surmised: '[A]n inordinate number of GRID victims' he stated were in the HB vaccine trial. 'Of the first twenty-four GRID cases in San Francisco, in fact, eleven were in the hepatitis B cohort' (35).

Based on CDC reports, as scrutinized by investigative journalist and gay physician Alan Cantwell, the first 26 AIDS cases were all homosexual men – 20 were from

NYC, and 6 were from Los Angeles (18,40). Conducting an independent study paralleling this author's (22), and drawing similar conclusions, Dr. Cantwell reported a gross absence of scientific prowess on the part of CDC officials investigating an apparent HB vaccine AIDS link (35,40). Conflicting interests, he concluded, best explained the blatant biases and flawed methods used by official investigators during studies used to reassure the scientific/medical communities, and the general public, regarding the safety of HB vaccines (22,29,35,40–42).

'DISSIDENT' AIDS THEORIES, OFFICIAL DETRACTORS, AND POLITICAL IMPLICATIONS

In recent months, opponents of the 'OPV/AIDS hypothesis' have criticized Hooper's text as being 'irresponsible,' and 'very, very short of ... hard facts.' (5,43,44). Among Hooper's leading detractors is retrovirologist John Moore, affiliated with Rockefeller University's Aaron Diamond Research Center in New York.

In 1996, following the XI International Conference on AIDS wherein I initially presented this paper's polio/HB vaccine/AIDS hypothesis during a poster session (45), this hypothesis was flippantly rebuked by Moore in the Canadian press (46). As with his critique of Hooper's well researched tome, Moore alleged that my conclusions were devoid of 'scientific basis' and without merit.

When this author personally contacted Dr. Moore in an effort to open dialogue and further genuine scientific discourse following his Canadian press interview (46), he refused any formal discussion. Responding later to my continued prodding, he wrote from the Aaron Diamond AIDS Research Center, 'I explicitly denied you an interview when you requested one. . . . I said to you that I had "no interest" in your . . . grotesque theories. . . . For the record, I know what your views are, and I reject them. Indeed, I dismiss them as uninteresting, incorrect and downright stupid.' (47).

Regarding Hooper's work, Moore wrote, such efforts were potentially damaging to the public's trust of western medicine, and harmful to 'ongoing efforts to make AIDS vaccines for use in Africa.' (43).

It should be noted that Moore's institutional benefactors include the Rockefeller family which, along with the Rockefeller Foundation, has heavily invested in 'Western medicine,' the cancer and vaccine industries, and the Merck pharmaceutical company in particular, along with propaganda and population control organizations worldwide (22,48,49). Moore's bias is thus strongly suggested.

More sensibly, an anonymous author from an unnamed 'HIV/AIDS lab' concluded that if Hooper's hypothesis was correct, 'the implications are just too shocking to even begin to accept . . .' This investigator raised reasonable questions concerning Hooper's '27 arguments for the

OPV/AIDS hypothesis' (44). The first, unsupported by this report, concerns the 'assumed' use of contaminated chimpanzees during 'safety-testing [of] the Koprowski vaccine strains'. That such primates, or their kidneys, were likely used to attenuate polio virions for use in experimental vaccines, as Hooper assumed, is reasonable, based on the documentation advanced herein showing this practice continued to at least the mid-1970s during HB vaccine experiments by Hilleman, Purcell et al. (5,18,44).

Although 'it has never been proven that SIVcpz can withstand the vaccine manufacturing process' (44), as this critic contested, regarding both Salk and Sabin polio vaccines, according to the authorities cited above, doses routinely contained live simian virus particles, including SV40, SIVagm, and SFRs overlooked by FDA overseers (4,7,15). In fact, Dr. Maurice Hilleman, in charge of manufacturing the OPV for the Merck pharmaceutical company, and later the HB vaccines in question, admitted in 1986 that not only had live monkey cancer viruses passed into Salk's supposedly killed vaccine, but the Sabin OPV likewise transmitted live monkey kidney tissue derived SV40. 'One in 10,000 [SV40] particles,' Hilleman explained, 'is not inactivated by formaldehyde. Which was a very strange phenomenon. . . . It was good science at the time because that's what you did. You didn't worry about these wild viruses' (22,23). Thus, he admitted, the 'yellow fever vaccine had leukemia virus in it, . . . this is in the days of very crude science'. Both Salk and early Sabin polio vaccines were made in just those 'days of very crude science'. They may have, thus, as Hooper concluded, contributed to the AIDS pandemic.

Additionally, Hooper's scholarly detractor cautioned that the 'precursor of HIV-1 may not have come from' the areas of Africa that Hooper theorized. The reviewer noted, 'the geographic coincidence of SIVcpz and the HIV-1 Group N viruses (Cameroon) effectively abolishes the OPV/AIDS hypothesis for this HIV-1 group . . . [The] HIV-1 Group M viruses remain more closely related to SIVcpz from the *troglodytes* subspecies' (44).

This observation does not preclude, however, the thesis advanced herein regarding the transportation of non-human primates carrying SV40, SFR, SIVagm, SIVcpz, and/or other possible HIV-1 progenitors, and their subsequent transmission, recombination, and/or activation, within and between experimental subjects on the African and American continents. It is well established that colony born monkeys and chimpanzees, along with wild captives, were commonly contaminated before and during transport around the world for scientific purposes, including vaccine research and development. The polio and HB vaccine trials are well documented examples.

Hilleman, in fact, disclosed to Harvard medical historian Edward Shorter that he threatened to halt polio vaccine production in the early 1960s if such contamination could

not be arrested (23). Unfortunately, the problem was never fully solved, and the contaminations continued well into the 1970s according to Martin (7) and polio vaccine injury attorney Kyle (4).

Finally, 'the fact that it took so much effort to PCR-amplify sequence fragments from the L70 isolate (1959) from plasma (10) where virus is usually found, makes it hard to envision that a virus will be detected from the vaccine preparations' (44) that Hooper (5), and others (1,4,7,28), have repeatedly suggested be analyzed. Yet, the vaccine manufacturers involved, to the time of this writing, have denied requests for vaccine samples to be distributed to independent labs for analysis.

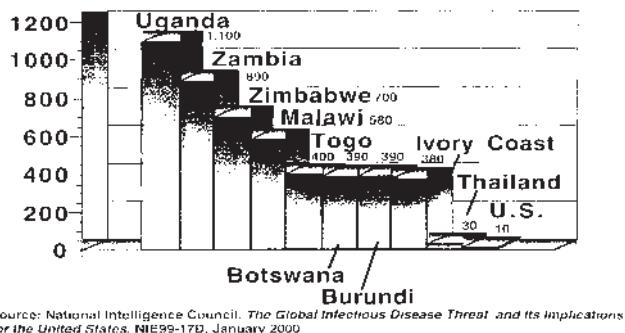
More politically challenging is the fact that the four HB vaccine subtypes in question were produced, according to Purcell, by four distinct organizations including the CDC, FDA, America's AIDS effort director – the NIAID, and the Merck pharmaceutical company. Given recent 'national security' legislation, and military intelligence agency oversight of these organizations, as discussed below, such cooperation remains unlikely.

On April 30, 2000, the U.S. news media announced a National Security Agency (NSA) move to place AIDS science, and public health agencies, under military intelligence command (i.e., the NSA and CIA). Curiously, following South African President's Thabo Mbeki's decision to include the testimonies of 'dissident' scientists in a review of HIV/AIDS's origin, pathogenesis, and treatment practices, President Clinton, was advised by the National Intelligence Council (NIC), to formally declare global AIDS a U.S. 'national security threat' (50,51).

The CIA sponsored report warned, 'The persistent infectious disease burden is likely to aggravate and, in some cases, may even provoke economic decay, social fragmentation, and political destabilization in the hardest hit countries. . . . The study defined "instability," as revolutionary wars, ethnic wars, genocides, and disruptive regime transitions. . . . Dramatic declines in life expectancy, the study said, are the strongest risk factor for' such threats to national security. Such 'deterioration', intelligence analysts wrote, might be followed by only 'limited improvement . . . owing to better prevention and control efforts, new drugs, and vaccines' (52).

The report posted one statistic relevant to this paper's hypothesis. Figure 1 summarizes their intelligence on the 'Number of 15-year-olds per 10 000 of that age group who have lost their mothers or both parents to AIDS'. Uganda, a principal site of African HB vaccine trials, far surpassed other nations in this catastrophic parameter (51).

Finally, according to U.S. Government watchdog groups and related policy analysts linked to JuriMed – a North American alternative medicine advocacy and legislative lobbying group – the legislation empowers the CIA to act against scientific 'dissidents' who raise con-



Source: National Intelligence Council, *The Global Infectious Disease Threat and its Implications for the United States, NIE99-17d*, January 2000
<http://www.cia.gov/cia/publications/report/nie99-17d.html>

Fig. 1 Number of 15-year-olds per 10 000 of that age group who have lost their mother or both parents to AIDS.

cerns regarding vaccination policies, as done in this report, as a threat to U.S. National Security. The JuriMed communique heralded the likelihood of increased 'mainstream [media] blackouts on AIDS dissident positions,' and 'global disease control' initiatives including 'wide-ranging vaccination programs' becoming more coercive (50).

CONCLUSIONS

A well documented and theoretically viable route of HIV evolution, and/or transmission, is outlined in this report. Sequentially, this includes:

1. Polio vaccine recipients worldwide, including gay men and mentally retarded children in New York, and Blacks in Uganda, were exposed to simian viruses including SV40, SFR, SIVagm, and perhaps others from the mid-1950s, through at least the 1960s (1–6).
2. Between 1965 and 1970, researchers in NYC 'isolated', and then inoculated into these New York and Uganda human vaccine study 'volunteers', the MS-2 strain of HB virus. These injections and pilot HB vaccine studies may have activated an endogenous or exogenous HIV-related retroviral gene in one or more of the subjects (1,2,6,19).
3. These human derived HB viruses, and potentially activated retroviral sequences, were then transferred to chimpanzees, then back again to humans in NYC and central Africa during the development and testing of four genetically altered subtypes of the 1974–1975 experimental HB vaccine (18–20).
4. HIV-1 progenitor contamination and transmission risks were likely increased by: a) the subsequent pooling of blood donated by the 'volunteers' who had been injected with the chimpanzee cultured HB strains, and b) the biohazardous laboratory conditions and viral containment problems reported by the affiliated investigators.

5. Subsequently, the four pooled blood derived HB vaccines were then administered to thousands of test subjects – primarily gay males in NYC, WSS children, and central African Blacks (18, 19).

This hypothesis might best explain the conclusion reached by Myers concerning AIDS's initial leap to humans: 'The preponderance of evidence still argues for an explosive event in the mid-1970s' (13). With the sudden, virtually simultaneous, appearance of several HIV major group subtypes primarily striking central Africa and NYC by 1978, given the seven to ten year incubation period of HIV/AIDS, the HB vaccine trials, begun as early as 1965 in New York and Uganda, and in NYC gay populations soon after, likely played a catalytic role in the origin of the AIDS pandemic.

Additional research using PCR analysis of suspected polio and HB vaccine lots, particularly those given to gay men and WSS children in New York before 1976, is indicated in an effort to possibly identify retroviral contaminants related to HIV. Epidemiological efforts should also be made to contact the families of the WSS children, as well as the gay men in NYC who participated in the pre-1976 HB vaccine pilot studies, to document histories relevant to further considering this hypothesis.

Obviously, due to the lethal nature and severe cost of the AIDS pandemic, should this premise be firmly established, it would beg a global reevaluation of vaccination science, politics, and policies. Based on the preliminary findings reported here, and in the author's text (7), at least three Third World nations have moved in this direction (53). For related reasons, as discussed by U.S. intelligence agency analysts, AIDS science is now recognized as a 'national security' threat (51,52). Given the potentially grave socioeconomic, political, and now military implications of uncovering a vaccine industry linked cause for AIDS, future publications and open dialogue regarding this hypothesis in the mainstream and scientific media may be increasingly difficult to achieve.

Not easily embraced by individuals, organizations, institutions, and/or government agencies biased by special interests, the dire implications of neglecting this hypothesis, and its further investigation, are unfathomable. Such actions strain the ethical fabric of science, our moral obligations as world citizens, and may be contributing to an irreversible attack against humanity.

On the other hand, the AIDS crisis may serve an ideologically justified function concerning burgeoning ethnic populations in a period of globalistic transition. In effect, it provides a revenue generating control mechanism for 'national security' interests and the organizations, institutions, and industries aligned with what amounts to utilitarian global genocide. For this reason, the value of this medical hypothesis and publication may never be fully realized.

ACKNOWLEDGMENTS

The author gratefully acknowledges the contributions in this field, and/or personal advice provided, by Alan Cantwell, Jr., M. D., Robert Strecker, M. D., John Seale, M. D., Walter Kyle, J. D., and John Martin, M. D., Ph.D., and the support, financial and otherwise, of thousands of well-wishers since this investigation began in 1993. Special thanks go to Dr. David Horrobin and the peer review committee of *Medical Hypotheses* for objectively evaluating this thesis, and having the heroic fortitude and scientific integrity to commit it to print.

This paper is dedicated to the fine efforts and genuine honesty of the late Jonathan Mann who, with his wife, a HB vaccine investigator, met an untimely fate on Flight 111. Far more than a medical problem, Dr. Mann believed, AIDS is a socio-political imposition.

REFERENCES

- Urnovitz H. B., Sturge J. C., Gottfried T. D., Murphy W. H. Urine antibody tests: new insights into the dynamics of HIV-1 infection. *Clin Chem* 1999; **45**(9): 1602–1613.
- Jafar S., Rodriguez-Barradas M., Graham D. Y., Butel J. S. Serological evidence of SV40 infections in HIV-infected and HIV-negative adults. *J Med Virol* 1998; **54**(4): 276–284.
- Butel J. S., Arrington A. S., Wong C., Lednicky J. A., Finegold M. J. Molecular evidence of simian virus 40 infections in children. *J Infectious Diseases* 1999; **180**: 884–887.
- Kyle W. S. Simian retroviruses, poliovaccine, and origin of AIDS. *The Lancet* 1992; **339**: 600–601.
- Hooper E. *The River: A Journey to the Source of HIV and AIDS*. Boston: Little, Brown and Company, 1999: pp. 156–157.
- Marriott S. J., Lee T. H., Slagle B. L., Butel J. S. Activation of the HTLV-1 long terminal repeat by the hepatitis B virus X protein. *Virology* 1996; **224**; 1: 206–213.
- Horowitz L. G., Martin J. W. *Emerging Viruses: AIDS & Ebola*. Rockport, MA: Tetrahedron Press, 1998, pp. XVI–XVII; 72–75; 488–493.
- Poiesz B., Tomar R., Lehr B., Moore J. (and anonymous CDC authors). Hepatitis B vaccine: Evidence confirming lack of AIDS transmission. *MMWR* 1984; **33**(49): 685–687.
- Casado C., Urtasun I., Martin-Walther M. V., Garcia S., Rodriguez C., del Romero J., Lopez-Galindez C. Genetic analysis of HIV-1 samples from Spain. *J Acqui Immune Defic Syndr* 2000 Jan 1; **23** (1): 68–74.
- Zhu T., Kober B. T., Nahmias A. F., Hooper E., Sharp P. M., Ho D. D. An African HIV-1 sequence from 1959 and implications for the origin of the epidemic. *Nature* 1998; **391**; Feb 5; 594–597.
- Gao F., Bailes E., Robertson D. L. et al. Origin of HIV-1 in the chimpanzee Pan troglodytes troglodytes (letter). *Nature* 1999; **397**: 436–441.
- Weiss R. A., Wrangham R. W. From Pan to pandemic (editorial). *Nature* 1999; **397**: 385–386.
- Myers G. et al. "Phylogenetic moments in the AIDS epidemic", Chapter 12 in S. S. Morse, ed., *Emerging Viruses*. Oxford, Eng.: Oxford Univ. Press, 1993.
- Garrett L. *The Coming Plague: Newly Emerging Diseases in a World Out of Balance*. New York: Penguin Books, 1994, pp. 361–385.
- Essex M., Kanki P. The origins of the AIDS virus. *Scientific American* 1988; **259**: 64–71.
- CDC staff. Kaposi's sarcoma and pneumocystis pneumonia among homosexual men – New York City and California. *MMWR* 1981; **30**: 305–308.
- USDHEW. *Virology: Volume 4—Control of Viral Infections. NIAID Task Force Report*. Bethesda, MD: Public Health Service, National Institutes of Health (NIH) 79-1834, 1979: p. 20-65-78.
- Purcell R. H. Current understanding of hepatitis B virus infection and its implications for immunoprophylaxis. In: *Antiviral Mechanisms: Perspectives in Virology IX. The Gustav Stern Symposium*. New York: Academic Press, 1975: pp. 49–76.
- Krugman S. Viral hepatitis type B: Prospects for active immunization. In: *International Symposium on Viral Hepatitis, Milan, Dec. 1974. Develop. biol. Standard. Vol. 30*, Munich: Karger Basel S., 1975; pp. VI; 363–367; relevant general discussion can be found on pp. 375–379; See also: Krugman S., Giles J. P., Hammond J. Hepatitis virus: effect of health on the infectivity and antigenicity of the MS-1 and MS-2 strains. *J Infectious Disease* 1970; **122**: 432–6; Krugman S., Giles J. P., Hammond J. Viral hepatitis, type B (MS-2 strain): Studies on active immunization. *JAMA* 1971; **217**: 41–45; Krugman S., Giles J. P. Viral hepatitis, type B (MS-2 strain); further observations on natural history and prevention. *New England Journal of Medicine* 1973; **288**: 755–760; and Krugman S., Overby L. R., Mushahwar I. K., Ling C.-M., Forsner G. G., Deinhardt F. Viral hepatitis, type B: Studies on natural history and prevention reexamined. *New England Journal of Medicine* 1979; **200**: 101–106.
- NCI staff. *The Special Virus Cancer Program: Progress Report #8* [and #9]. Office of the Associate Scientific Director for Viral Oncology (OASDVO). Moloney J. B., Ed. Washington, D. C.: U. S. Government Printing Office, 1971 [and 1972]. Note: This is a very hard publication to find. Few library data bases have it listed, including the NCI Library at Fort Detrick. It is available through the Davis Library, The University of North Carolina, Chapel Hill, Government Documents Department Depository, Reference # HE 20.3152: V81. The Litton "support services" contracts that included primate supplies are found on pp. 187–188 and 326–327 of the reports. Litton's list of mutant viruses, including retroviruses, and other experimental infectious agents including AuAg is found on pp. 279–280 and 284 of Project Report #8, of 1971; for additional documentation on hepatitis and herpes experimentation in Uganda before 1971 see: Higginson J., Muir C. S. Epidemiologic program of the International Agency for Research on Cancer (IARC). In: The National Cancer Program and International Cancer Research, National Cancer Institute Monograph 1974; **40**: 65.
- Department of Defense Appropriations for 1970: Hearings Before A Subcommittee of the Committee on Appropriations House of Representatives, Ninety-first Congress, First Session, H. B., 15090, Part 5, Research, Development, Test and Evaluation of Biological Weapons, Dept. of the Army. U. S. Government Printing Office, Washington, D. C., 1969: p. 689.
- Horowitz L. G., Martin J. W. *Op. cit.*, pp. 250–251; for detailed analysis on flawed HB vaccine/gay AIDS study involving the CDC see pp. 240–241, and for Dr. Poiesz's potential conflicts of interest in this regard see p. 249; for data concerning precipitous rise in HIV/AIDS rates among HB vaccine recipients see pp. 242–243; for dialogue with Max Essex, see pp. 131–132; for NYUMC blood grouping discussions and references see pp. 443–444; for WSS closing discussion see p. 254; for excerpts from "The Hilleman interview" see pp. 481–488; for Rockefeller financial ties to the Merck pharmaceutical company, the cancer industry, and various population control organizations including the Alfred P. Sloan Foundation, see pp. 203–204, 329, 475–479; for Merck's ties to biological weapons contracts and the CIA's Project: MKNAOMI see pp. 37–38, 311–315.
- Shorter E. The Hilleman interview, February 6, 1987. A recording for background research in preparation of *The Health Century*, a companion to the PBS television series. New York: Doubleday,

1987, pp. 67–69; 195–204. Bethesda, Maryland: Audio Archives, National Library of Medicine 1987.

24. Moriarty T. J. The polio vaccine and simian virus 40: After thirty years, prominent polio vaccine researcher confirms suspicions about monkey-virus contamination. <http://www.chronicillnet.org/online/bensweet.html#anchor714274>.
25. Kanki P. J., Barin S., M'Boup et al. New human T-lymphotropic retrovirus (HTLV-IV) related to simian T-lymphotropic virus Type III (STLV-IIIagm). *Science* 1986; **232**: 238–243; see also Essex M., Kanki P. The origins of the AIDS virus. *Scientific American* 1988; **259**: 64–71.
26. Kanki P. J., M'Boup S., Marlink R. et al. Sequence of simian immunodeficiency virus and its relationship to the human immunodeficiency viruses. *Nature* 1987; **328**: 539–543.
27. Chakrabarti L., Guyader M., Alizon M. et al. Sequence of simian immunodeficiency virus from macaque and its relationship to other human simian retroviruses. *Nature* 1987; **328**: 543–547.
28. Schulz T. F. Origin of AIDS (letter to the editor). *The Lancet* 1992; **339**: 867.
29. Cantwell Jr. A. Queer Blood. Los Angeles: Aries Rising Press, 1993, p. 104.
30. Personal communication January 25, 1997, with Dr. Eleanor R. Lappano-Colletta, 22A Edmond Court, Jackson, NJ, 08527. For more information call 732-928-9102.
31. Krugman S., Giles J. P., Hammond J. Infectious hepatitis: Evidence for two distinctive clinical, epidemiological, and immunological types of infection. *JAMA* 1967; **200**; 5: 366–373 (96–103).
32. Szmuness W., Stevens C. E., Harley E. J., Zang E. A., Oleszko W. R. et al. Hepatitis B vaccine: Demonstration of efficacy in a controlled clinical trial in a high-risk population in the United States. *New England Journal of Medicine* 1980; **303**(15): 833–841.
33. Krugman S., Overby L. R., Mushahwar I. K., Ling C.-M., Forsner G. G., Deinhardt F. Viral hepatitis, type B: Studies on natural history and prevention reexamined. *New England Journal of Medicine* 1979; **200**: 101–106.
34. Shilts R. *And The Band Played On: Politics, People and the AIDS Epidemic*. New York: Penguin Books, 1987, pp. 202–203; 371; 409.
35. Cantwell, Jr. A. Is AIDS a man-made disease? *International Journal of Medicine* 1998; **1**(2–4): 94–104.
36. Gallo R. C., Sarin P. S., Allen P. T., Newton W. A., Priori E. S., Bowen J. M., Dmochowski L. Reverse transcriptase in type C virus particles of human origin. *Nature New Biology* 1971; **232**: 140–142; see also Gallo R. C. Transfer RNA and transfer RNA methylation in growing and “resting” adult and embryonic tissues and in various oncogenic systems. *Cancer Research* 1971; **31**: 621–629.
37. Herrera F., Adamson R. H., Gallo R. C. Uptake of transfer ribonucleic acid by normal and leukemic cells. *Proc Nat Acad Sci* 1970; **67**(4): 1943–1950. This paper was presented before NATO scientists at the “International Symposium on Uptake of Informative Molecules by Living Cells, Mol, Belgium, 1970”; see also: Gallo R. C., Perry S. Enzymatic abnormality in human leukaemia. *Nature* 1968; **218**: 465–466; and Gallo R. C., Yang S. S., Ting R. C. RNA dependent DNA Polymerase of human acute leukaemic cells. *Nature* 1970; **228**: 927–929.
38. Shilts R. *Ob cit*, p. 553.
39. Shilts R. *Ibid*, p. 125; 458.
40. Cantwell, Jr. A. *AIDS and the Doctors of Death: An Inquiry into the Origin of the AIDS Epidemic*, Los Angeles: Aries Rising Press 1992, pp. 83–109.
41. CDC staff. Hepatitis B virus vaccine safety: Report of an interagency group. *MMWR* 1982; **31**: 465–467.
42. CDC staff. The safety of hepatitis B virus vaccine. *MMWR* 1983; **32**: 134–136.
43. Moore J. A review of *The River: A Journey to the Source of HIV and AIDS* as published on <http://www.Amazon.com>. For communications with Dr. Moore contact: jmoore@adarc.org.
44. Anonymous “HIV/AIDS lab” author. A review of *The River: A Journey to the Source of HIV and AIDS* as published on <http://www.Amazon.com>. The author did not leave his correspondence address.
45. Horowitz L. G., Strecker R., Cantwell A., Vid D., Grossman G. The mysterious origin of HIV: reviewing the natural, iatrogenic, and genocidal theories of AIDS. (Abstract) XI International AIDS Symposium. Vancouver, Canada, July 10, 1996.
46. Canadian Press. ‘Lab theory’ on AIDS criticized. *The Vancouver Sun*, Thursday, July 11, 1996, p. 84.
47. A letter dated July 31, 1996, to the author, from John P. Moore, Ph.D., Staff Investigator, Aaron Diamond AIDS Research Center, Affiliate of the Rockefeller University, 455 First Avenue, New York, New York, 10016; (212) 725-0018.
48. Starr P. *The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry*. New York: Basic Books 1982, pp. 342–343.
49. Simpson C. *Science of Coercion: Communication Research & Psychological Warfare 1945–1960*. Oxford: Oxford University Press, 1994.
50. Bolen T. AIDS dissidents now a threat to US National Security: An analysis of implications based on a CIA report circulated by the *Washington Post*. For more information contact: <http://www.aidsmyth.com/news/>. To contact JuriMed E-mail: jurimed@yahoo.com.
51. Gellman B. AIDS is declared threat to security. *Washington Post* Online, Sunday, April 30, 2000; p. A01. (See: <http://www.washingtonpost.com/wp-dyn/articles/A40503-2000Apr29.html>)
52. National Intelligence Council staff. The Global Infectious Disease Threat and Its Implications for the United States. “[P]roduced under the auspices of David F. Gordon, National Intelligence Officer for Economics and Global Issues”, Lt. Col. (Dr.) Don Noah of the Armed Forces Medical Intelligence Center and George Fidas of the National Intelligence Council, chaired and submitted by John C. Gannon. NIE 99-17D, January 2000, pp. 4, 27, 29–30. (See: <http://www.cia.gov/cia/publications/nie/report/nie99-17d.html>)
53. Personal communications: from Major Caleb Gwambo, Director, Department of Defense, Office of the President, P. O. Box 40668, Nairobi, Kenya (2542 884466; 2542583542); and Dr. Alim Muhammad, Health Minister, Nation of Islam, 202-397-4000; 301-894-9345)